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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/805,111	03/14/2001	Neo Chee Peng	M4065.0394/P394	1491
24998	7590	06/17/2004	EXAMINER	
DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP			ASHLEY, BOYER DOLINGER	
2101 L STREET NW			ART UNIT	
WASHINGTON, DC 20037-1526			PAPER NUMBER	
			3724	

DATE MAILED: 06/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/805,111	PENG, NEO CHEE	
	Examiner	Art Unit	
	Boyer D. Ashley	3724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,5,7 and 8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,7 and 8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

1. In view of the appeal brief filed on 3/22/04, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over EP 307, 509, hereinafter EP '509, in view of Saito et al., U.S. Patent 6,080,263.

EP '509 discloses the invention substantially as claimed, including a support (108) for holding a wafer having a protective tape thereon; a cutting element (65/103/105) placed at a first predetermined distance from the support for moving relative to the support; a sensor (90/110) for sensing (column 2, lines 10-15)

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abnormalities cutting step; and a circuit (inherent if there is a sensor) for controlling the operation of the device, including stopping the operation of the device upon detection of an abnormality.

EP '509 does not specifically disclose that the sensor detects if the tape is properly removed or not; however, Saito et al. discloses that it is old well known in the art that tape burrs formed during the tape cutting step ultimately destroy the wafers during the back grinding step. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to use the sensor of EP '509 to check to see if a tape burr was formed on the wafer and for causing the control to prevent the wafer from being transported to the back grinding device if a burr is detected.

It should further be noted that the phrase "for moving the ... removed" is merely intended use not defining any specific structure. Furthermore, there is no back grinding device positively recited and is not part of the invention. Therefore, the transport mechanism of EP '509 need only be capable of transporting the wafer to a back grinding device. In this case, the conveyor belts are fully capable of being arranged to be used with a back grinding device.

As to claims 2 and 4, the circuit of the modified device of EP '509 is capable of initiating actions by stopping the cutting operation; by stopping further movement of the wafer to a grinding area; and by preventing back grinding.

As to claim 5, the sensor of EP '509 is a mechanical sensor, in that, the all sensor have some mechanical elements.

As to claim 8, the sensor of EP '509 is behind the cutting element because it is the only location that allows for detecting action by the cutting element.

As to the phrases "the circuit for ... apparatus" (claim 2), "the circuit for ... area" (claim 3), "the circuit ... the wafer" (claim 4) do not serve to further limit the claims because it is merely functional/intended use not defining any specific structure.

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over EP '509 in view of Saito et al.

The modified device of EP '509 discloses a first predetermined distance but is silent as to the specific distance of 0.5 mm from the edge of the wafer. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the predetermined distance of 0.5 mm in order to facilitate the sensor's ability to sense based on the tolerances of the sensor, because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

### ***Response to Arguments***


5. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Boyer D. Ashley whose telephone number is 703-308-1845. The examiner can normally be reached on Monday-Thursday 7:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan N. Shoap can be reached on 703-308-1082. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Allan N. Shoap  
Supervisory Patent Examiner  
Group 3700



Boyer D. Ashley  
Primary Examiner  
Art Unit 3724

BDA  
June 11, 2004